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Research Article

NURSING EXPERIENCES IN URINARY CATHETER INSERTION PRACTICES IN ADMITTED PATIENTS

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Abstract:

Objective: The objective of this pilot study is to encompass experience of registered nurses in terms of their practices and perceptions of indwelling urinary catheters and their projected uneventful duration of stay. **Introduction:** Safeguarding patients from urinary tract infections resulting from indwelling urinary catheters is a major challenge for the healthcare delivery system. Recently it has been established clinically that different urinary catheters have their own validity for their duration of insertion getting infected (Blodgett, 2009).¹ Nurses play a key role in developing strategies for placing and maintaining catheters to check the incidence of UTIs. **Materials and Methods:** A convenience sample of 100 registered nurses working in medical surgical and ICUs of Mayo Hospital Lahore was enrolled in this study during January 2021 to April 2021. The perceptions of urinary catheters utilization was measured using the five-point Likert scale (Burns & Grove, 2005).² Length of stay and days of catheter in-situ was confirmed from the history sheets of admitted patients from the hospital record room. **Results:** It was identified that the extent of catheter insertion is not closely looked upon in developing the management plans and daily nursing notes of admitted patients. **Conclusion:** In order to mitigate the catheter associated ascending infections, the knowledge, attitudes, and practices of the nurses should be revolutionized through coherent, evidence and guidelines based learning programs and revision of hospital policies.

Keywords: indwelling urinary catheters, urinary tract infections (UTIs), nurses perception and practices**Corresponding author:****Sajida Perveen,**

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INTRODUCTION:

Urinary catheters belong to one of the life-saving medical equipment employed in the management of various disorders and diseases in both indoor and outdoor facilities. Despite its vast practicality, irrational and inappropriate utilization of such devices can lead to an increased risk of hospital-acquired ascending infection. The past three decades have witnessed a growing trend regarding the planning and development of patient-friendly material and recommended duration of insertion to mitigate associated UTIs (Blodgett, 2009).¹ Often, the reasoning used for determining if a patient needs a catheter is not evidence based. Nurses play a key role in their domain in developing strategies for placing and maintaining catheters to check the incidence of UTIs

There is a bulk of evidence suggesting the association of urinary tract infections with indwelling catheters. UTIs are the most common hospital-acquired infections (Brosnahan, Jull, & Tracy, 2007).³ In the US alone, these ascending tract infections make up to 32% of the total hospital-acquired infections (Elpern, Killeen, Ketchum, Wiley, Patel, & Lateef, 2009).⁴ And between 16%-25% of the admitted patients have an in-situ Foley (Saint & Kolwalski, 2008).⁵ The chance of catching a urinary tract infection soar to 3-10% per day if the remains inside and 50% of the patients will have bacteria or yeast in their urine if it remains inside for more than 5 days and the risk of developing urosepsis and psychosis multiplies with each given day (Blodgett, 2009).¹ Resulting UTIs cause psychosocioeconomic burden for the patient and the family (Saint, et al., 2008).⁶ For the provision of state of the art of patient care, it is essential that all preventable risk factors should be extensively assessed

to alleviate the implications of catheter associated UTIs. The new guidelines issued by the Centers for Disease Control in 2009 are the corner stone to mitigate the health challenges in this regard.

METHOD:

This pilot study was conducted using descriptive design with a convenience sample of 100 registered nurses working in medical surgical and ICUs of Mayo Hospital Lahore during January 2021 to April 2021. The perceptions of urinary catheters utilization was measured using the five-point *Likert scale* (Burns & Grove, 2005).² The frequency of the responses was measured against the variables *strongly disagree disagree uncertain agree strongly agree*. Length of stay and days of catheter in-situ was confirmed from the history sheets of admitted patients from the hospital record room.

The following research questions were addressed in this study:

1. What are the perceptions of nurses regarding the indwelling urinary catheters in admitted patients?
2. What is the tentative duration an admitted patient can remain catheterized safely without developing any complication?

The exclusion criteria only consisted of refusal to participate. The study was conducted after formal approval from the administrative focal persons and ethical review committee of the concerned institutions. Proper written consent was sought and privacy was maintained throughout the study. The data was analyzed using SPSS 20.

RESULTS:**Table.1 Demographic data of the respondents**

Age (Years)	Frequency	Percentage%
20-29	42	42
30-39	34	34
40-49	16	16
50-59	08	08
Experience (Years)		
1-5	12	12
6-10	18	18
11-15	32	32
16-20	28	28
21-25	10	10
Educational Status		
Diploma	46	46
Bachelors	34	34
Masters	20	20

The demographic data showed that 42% of the candidates belonged to the age group of 20-29 years. 32% had an experience of 11-15 years and 46% had a diploma in nursing.

Table.2 Descriptive data of the participants

Statement	N	M	SD
I know which of my patients have an indwelling urinary catheter	100	4.10	1.12
I know how many days each of my patients have had a catheter	100	2.44	1.14
The presence of a catheter is reported at shift change	100	4.24	0.87
The number of days a patient has had a catheter is reported at shift change	100	2.24	0.92
Do you remind physicians about the number of catheterized patients during the ward rounds?			
I sometimes forget which of my patients have indwelling urinary catheters	100	2.36	1.32
Indwelling urinary catheters are convenient for nursing staff	100	2.90	1.36
Patients who are incontinent should have indwelling urinary catheters	100	3.18	1.34
Patients who have difficulty going to the bathroom should have indwelling urinary catheters	100	2.90	1.24
Patients who have skin breakdown should have indwelling urinary catheters	100	4.34	0.76

There were 100 participants in the study (N=100). 80% of the respondents agreed or strongly agreed that they knew how many of their patients have had an indwelling urinary catheter. Only 24% agreed or strongly agreed that they were sure about the total days each patient remained catheterized. 92% of the respondents confirmed that the presence of a catheter is reported at the time of change of shift. 64% of the nurses strongly disagreed or disagreed that they sometimes forget which of their patients have had an in-situ catheter.

Only 40% of the respondents agreed or strongly agreed that they remind the physicians on ward round daily regarding the number of catheterized patients. 62% strongly agreed or agreed that patients who are incontinent should have an indwelling urinary catheter. Regarding trouble using bathroom only 40% agreed that they should be offered a catheter and 80% of the respondents were of the view that patient with skin breakdown should have a catheter in place.

DISCUSSION:

There is a bulk of amount of data related to the outcome of catheter material on developing subsequent UTIs, supporting silicone catheters are better studied superior in decreasing the incidence of UTIs. (Srinivasan & Karchmer, 2006).⁷ Unfortunately

little is studied on the norms and perceptions of the nurses regarding indwelling catheters.

According to a study conducted by Siegel (2006)⁸ revealed that although the nurses were well versed with the positive role of catheter stabilization in decreasing the rate of occurrence of UTIs but the prevalence of this trend remained only 4.48%.

In another study, Dingwell and McLafferty (2006)⁹ conducted in UK endorsed that nurses are chiefly responsible to decide and weigh benefits versus disadvantages of catheterization for managing incontinence especially in elderly.

Above findings were similar to the study undertaken by Gotelli et al., (2008)¹⁰ which highlighted that registered nurses are the driving force behind the plan of getting the catheter removed based on their perceptions and clinical wit.

Indwelling urinary catheters are often handled and monitored inappropriately. Many disturbing trends have been observed in this regard for example the catheter often remains in-situ unnoticed until the patient is discharged or develops a complicated UTI and masking the need for periodic replacement of linen after soiling (Saint S & EurekAlert, 2008).¹¹

As per the observations, lack of updated guidelines and failure to comply with the existing recommendations in addition to undocumented past medical/surgical and evasive attitude of the health personnel for their convenience or reluctance when re-insertions are required are the limiting factor to develop patient-friendly protocols urinary catheterization (Saint & Kolwalski, 2008).⁵

The primary objective in the management of catheter associated UTIs is to discourage the unnecessary urinary catheterization as much as possible or restrict the usage to the shortest time interval, is the most beneficial approach (Dailly, 2011)¹²

The presence of an IUC makes a patient prone to catch a complicated life-threatening hospital-acquired infection as evidenced by the research work (Saint & Kolwalski, 2008).⁵ Although the current data was scarce by the findings are homologous to the fact longer the hospital stay with catheterization greater the chances of UTIs.

Yet the majority of the participants recalled which of their patients had an indwelling urinary catheter (IUC), but were unable to mention the exact tenure of catheterization. Similarly the presence of an indwelling catheter was reported at every shift but the total period of time a patient remained catheterized was not reported. This phenomenon of direct relationship between numbers of days versus incidence of UTIs had already been demonstrated by the work of (Blodgett, 2009).¹

CONCLUSION:

The results of the above study highlight the fact that the practices and perceptions of the registered nurses are not in accordance to the recommended evidence-based guidelines for prevention of catheter associated UTIs. In order to mitigate the catheter associated ascending infections, the knowledge, attitudes, and practices of the nurses should be revolutionized through coherent, evidence and guidelines based learning programs and revision of hospital policies.

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